

Federal Circuit Patent Bulletin: *McRO, Inc. v. Bandai Namco Games Am., Inc.*

September 13, 2016

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On September 13, 2016, in *McRO, Inc. v. Bandai Namco Games Am., Inc.*, the U.S. Court of Appeals for the Federal Circuit (Reyna,* Taranto, Stoll) reversed the district court's judgment on the pleadings that U.S. Patents No. 6,307,576 and No. 6,611,278, which related to methods for automatically animating lip synchronization and facial expression of animated characters, were invalid for patent ineligible subject matter under 35 U.S.C. § 101. The Federal Circuit stated:

Section 101 defines patent eligible subject matter as "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," subject to the other limitations of the Patent Act. Apart from the Patent Act, the courts have created exceptions to the literal scope of § 101. "Laws of nature, natural phenomena, and abstract ideas are not patentable." This appeal involves the abstract idea exception.

In *Alice*, the Court applied a two-step framework for analyzing whether claims are patent eligible. First, we determine whether the claim at issue is "directed to" a judicial exception, such as an abstract idea. Mathematical formulas are a type of abstract idea. The abstract idea exception prevents patenting a result where "it matters not by what process or machinery the result is accomplished." We do not assume that such claims are directed to patent ineligible subject matter because "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." Instead, "the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter." If the claims are not directed to an abstract idea, the inquiry ends. If the claims are "directed to" an abstract idea, then the inquiry proceeds to the second step of the *Alice* framework. In step two we consider whether the claims contain an "inventive concept" sufficient to "transform the nature of the claim into a patent-eligible application." To do so we look to both the claim as a whole and the individual claim elements to determine whether the claims contain "an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.'" . . .

The district court determined that claim 1 of the '567 patent is "drawn to the [abstract] idea of automated rules-based use of morph targets and delta sets for lip-synchronized three-dimensional animation." We disagree. We have previously cautioned that courts "must be careful to avoid oversimplifying the claims" by looking at them generally and failing to account for the specific requirements of the claims. Here, the claims are limited to rules with specific characteristics. As the district court recognized during claim construction, "the claims themselves set out meaningful requirements for the first set of rules: they 'define[] a morph weight set stream as a function of phoneme sequence and times associated with said phoneme sequence.'" They further require "applying said first set of rules to each sub-sequence . . . of timed phonemes." Whether at step one or step two of the *Alice* test, in determining the patentability of a method, a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps. The specific, claimed features of these rules allow for the improvement realized by the invention. As the specification confirms, the claimed improvement here is allowing computers to produce "accurate and realistic lip synchronization and facial expressions in animated characters" that previously could only be produced by human animators. . . . The claimed rules here, however, are limited to rules with certain common characteristics, i.e., a genus.

Claims to the genus of an invention, rather than a particular species, have long been acknowledged as patentable. Patent law has evolved to place additional requirements on patentees seeking to claim a genus; however, these limits have not been in relation to the abstract idea exception to § 101. Rather they have principally been in terms of whether the patentee has satisfied the tradeoff of broad disclosure for broad claim scope implicit in 35 U.S.C. § 112. It is self-evident that genus claims create a greater risk of preemption, thus implicating the primary concern driving § 101 jurisprudence, but this does not mean they are unpatentable.

The preemption concern arises when the claims are not directed to a specific invention and instead improperly monopolize "the basic tools of scientific and technological work." The abstract idea exception has been applied to prevent patenting of claims that abstractly cover results where "it matters not by what process or machinery the result is accomplished." "A patent is not good for an effect, or the result of a certain process" because such patents "would prohibit all other persons from making the same thing by any means whatsoever." A patent may issue "for the means or method of producing a certain result, or effect, and not for the result or effect produced." We therefore look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.

Claim 1 of the '576 patent is focused on a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type. We disagree with Defendants' arguments that the claims simply use a computer as a tool to automate conventional activity. While the rules are embodied in computer software that is processed by general-purpose computers, Defendants provided no evidence that the process previously used by animators is the same as the process required by the claims. . . . The computer here is employed to perform a distinct process to automate a task previously performed by humans. . . . This activity, even if automated by rules, would not be within the scope of the claims because it does not evaluate sub-sequences, generate transition parameters or apply transition parameters to create a final morph weight set.

It is the incorporation of the claimed rules, not the use of the computer, that “improved [the] existing technological process” by allowing the automation of further tasks. . . . Further, the automation goes beyond merely “organizing [existing] information into a new form” or carrying out a fundamental economic practice. The claimed process uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters. While the result may not be tangible, there is nothing that requires a method “be tied to a machine or transform an article” to be patentable. The concern underlying the exceptions to § 101 is not tangibility, but preemption.

The limitations in claim 1 prevent preemption of all processes for achieving automated lip-synchronization of 3-D characters. . . . Even so, we have recognized that “the absence of complete preemption does not demonstrate patent eligibility.” The narrower concern here is whether the claimed genus of rules preempts all techniques for automating 3-D animation that rely on rules. Claim 1 requires that the rules be rendered in a specific way: as a relationship between subsequences of phonemes, timing, and the weight to which each phoneme is expressed visually at a particular timing (as represented by the morph weight set). The specific structure of the claimed rules would prevent broad preemption of all rules-based means of automating lip synchronization, unless the limits of the rules themselves are broad enough to cover all possible approaches. There has been no showing that any rules-based lip-synchronization process must use rules with the specifically claimed characteristics. . . . Under these circumstances, therefore, we need not assume that future alternative discoveries are foreclosed.

Here, the structure of the limited rules reflects a specific implementation not demonstrated as that which “any [animator] engaged in the search for [an automation process] would likely have utilized.” By incorporating the specific features of the rules as claim limitations, claim 1 is limited to a specific process for automatically animating characters using particular information and techniques and does not preempt approaches that use rules of a different structure or different techniques. When looked at as a whole, claim 1 is directed to a patentable, technological improvement over the existing, manual 3-D animation techniques. The claim uses the limited rules in a process specifically designed to achieve an improved technological result in conventional industry practice. Claim 1 of the ‘576 patent, therefore, is not directed to an abstract idea. Because we find that claim 1 is not directed to ineligible subject matter, we do not reach *Alice* step two.